SB20G

Large Pressurized Abrasive Blaster

Assembly & Operating Instructions

READ ALL INSTRUCTIONS AND WARNINGS BEFORE USING THIS PRODUCT.

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

This manual provides important information on proper operation and maintenance. Every effort has been made to ensure the accuracy of this manual. We reserve the right to change this product at any time without prior notice.

STOP! DO NOT RETURN THIS PRODUCT TO THE RETAILER.

Questions? Problems? CONTACT CUSTOMER SERVICE.

If you experience a problem or need parts for this product, visit our website http://www.buffalotools.com or call our customer help line at 1-888-287-6981, Monday-Friday, 8 AM - 4 PM Central Time. A copy of the sales receipt is required.

TABLE OF CONTENTS

RECOGNIZE SAFETY SYMBOLS, WORDS AND LABELS 2

SERVICE.....5

SPECIFIC SAFETY RULES AND/OR SYMBOLS.....6

PACKAGE CONTENTS.....6

COMPONENTS.....6

ASSEMBLY 7

OPERATION 8

MAINTENANCE 9

PARTS DIAGRAM.....10

PARTS LIST.....11

RECOGNIZE SAFETY SYMBOLS, WORDS AND LABELS

What You Need to Know About Safety Instructions

Warning and Important Safety Instructions appearing in this manual are not meant to cover all possible conditions and situations that may occur. Common sense, caution and care must be exercised when assembling or using this product.

Always contact your dealer, distributor, service agent or manufacturer about problems or conditions you do not understand.

⚠WARNING This is a safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

CAUTION This is a safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

GENERAL PRODUCT SPECIFICATIONS

FEATURES:
- With Shut Off Valve
- Includes 8 Ft. Hose
- Funnel
- Tape
- Blasting Hood

SPECIFICATIONS

• Hose Length	8 Feet
• Working Pressure	60-125 PSI
• Air Consumption	6-25 CFM

KEEP THIS MANUAL, SALES RECEIPT & APPLICABLE WARRANTY FOR FUTURE REFERENCE.

READ ALL INSTRUCTIONS AND WARNINGS BEFORE USING THIS PRODUCT.

When unpacking, check to make sure all parts listed are included. If any parts are missing or broken, please call Customer Service at 1-888-287-6981.

FOR CONSUMER USE ONLY – NOT FOR PROFESSIONAL USE

IMPORTANT SAFETY RULES

COMMON SENSE AND CAUTION ARE FACTORS WHICH CANNOT BE BUILT INTO ANY PRODUCT. THESE FACTORS MUST BE SUPPLIED BY THE OPERATOR.

⚠WARNING

Keep your work area clean and well lit. Cluttered work benches and dark work areas may cause accidents or injury.

Do not operate the abrasive blaster in explosive areas, such as in the presence of flammable liquids, gases or dust. Tools create sparks which may ignite the dust or fumes.

Keep bystanders, children and visitors away while operating the abrasive blaster. Distractions can cause you to lose control.

⚠CAUTION

Do not force tool. Use the correct tool for your application. The correct tool will do the job better and safer at the rate for which it is designed.

Store idle tools out of reach of children and other untrained persons. Tools are dangerous in the hands of untrained users.

⚠DANGER

Always check to make sure that the trigger is not on before connecting blaster to air supply. Tool may cause damage to property or person if plugged in while on.

⚠WARNING

Wash hands after handling the air hose. Touching the air hose could expose you to lead, which is known in the State of California to cause cancer, birth defects and other reproductive harm.

⚠WARNING

All work areas should be clean and well lit. Accidents are more likely to occur in poorly lit and cluttered areas.

⚠WARNING

Keep children, and other distractions at a distance while operating the Abrasive Blaster.

⚠WARNING

Keep the air hose in good condition, and replace damaged air hose immediately. Keep the air hose away from materials and surfaces that could damage air hose.

⚠WARNING

Use common sense while operating this abrasive blaster.
Do not use this tool if you are:

- Feeling tired or are under the influence of alcohol or drugs.
- Wearing loose clothing or jewelry. Keep long hair pulled back and away from moving parts.
- Overreaching or have improper footing. Handling the tool in this way could cause serious injury.
- When using this Abrasive Blaster, always:
- Wear the proper safety equipment, such as safety goggles, dust masks, non-skid shoes, etc.
- Check to be sure all adjusting keys or wrenches have been removed before starting the power tool.
- Check that the power switch is in the “OFF” position before plugging the unit into an electrical outlet.

⚠ CAUTION

Follow these steps to maintain safe working conditions and good working condition of air blaster. Improper care can result in electric shock or serious injury.
Secure and support the work piece using clamps. **Do not use your hands to hold the piece in place.**
Use the correct tool for the job. Using the correct tool is safer and faster.
Keep out of reach of children, or any untrained person. Store tools in a safe and dry place.
Keep tools clean. Maintaining tools with proper care will increase the life of the power tool, and reduce the risk of injury.
Check to be sure all moving parts are free from binding and are properly aligned.
Use only accessories that are recommended by the manufacturer for your tool model.

⚠ WARNING

Safety glasses and ear protection must be worn during operation.

SERVICE

Tool service must be performed only by qualified repair personnel. Service or maintenance by unqualified personnel could result in a risk of injury.

When servicing a tool, use only identical replacement parts and follow instructions in the manual. Use of unauthorized parts or failure to follow Maintenance Instructions may create a risk of shock or injury.

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

This manual contains important information regarding safety, operation, maintenance and storage of this product. Before use, read carefully and understand all warnings, cautions, instructions and labels. Failure to do so could result in serious personal injury, property damage or even death.

IMPORTANT SAFETY INSTRUCTIONS

⚠ WARNING

Before using this tool, you need to become familiar with its operation. If you are unsure about the operation of the tool, or have any questions about its proper use, call the Customer Service Department at 1-888-287-6981. Follow these instructions for safe handling of the tool:

- **Always secure and support the work piece using clamps. Do not use your hands to hold the piece in place.**
- **Be sure your work area is clean and secure.** Be sure the area is free from all foreign material, nails, staples, or any other material**.**
- **Always use the appropriate safety gear when operating this abrasive blaster.** Including but not limited, to goggles, dust mask or respirator. Always work in a well-ventilated area to reduce your exposure to harmful chemicals and dust particles.
- **Keep hands away from the cutting area.**
- **Do not reach under the work piece.**

SPECIFIC SAFETY RULES AND/OR SYMBOLS

SYMBOLS

The following symbols may be used on your tool. Be familiar with and learn the symbols to operate the tool safely.

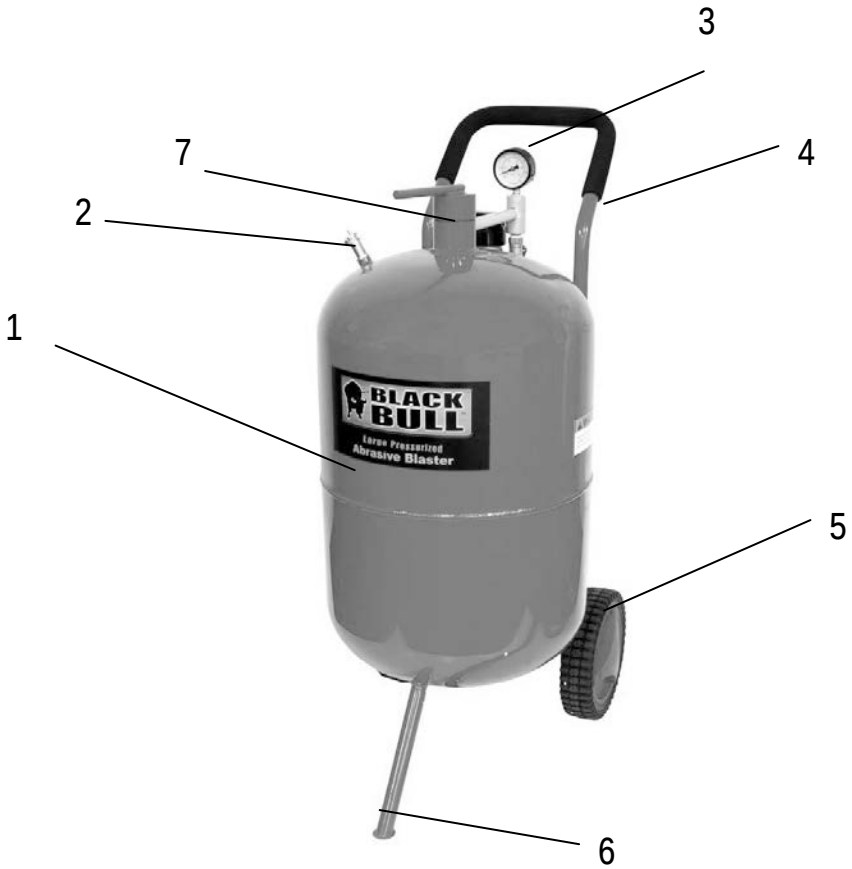
Symbol	Name	Description
V	Volts	Voltage (Potential)
A	Amperes	Current
Hz	Hertz	Frequency (Cycles per Second)
W	Watt	Power
Kg	Kilograms	Weight
~	Alternating Current	Type of Current
⎓	Direct Current	Type of Current
≂	Alternating or Direct Current	Type of Current
⏚	Earthing Terminal	Grounding Terminal
⧈	Class II Construction	Denotes Double Insulation
min	Minutes	Time
s	Seconds	Time
ϕ	Diameter	Size of Drill Bits, Grinding Wheels, etc.
n_0	No Load Speed	No-load Rotational Speed
…/min	Revolutions per Minute	Revolutions, Surface Speed, Strokes, etc. per Minute
1,2,3…	Ring Selector Settings	Speed, Torque or Position Settings

PACKAGE CONTENTS

- 8 Ft Hose
- Tank
- Hood
- Funnel

COMPONENTS

1. Tank
2. Safety Valve
3. Pressure Gauge
4. Handle Bar
5. Wheel
6. Front Foot
7. Filler Cap



ASSEMBLY

⚠ WARNING

Use Tape on all threaded joints. Make sure all joints are securely tightened.

1. Follow the diagram at right to install the various components (Figure 1).
2. Slide the two hose clamps (24) over each end of the Abrasive Hose (25) surface.
3. Press one end of the hose, over the nipple on the Abrasive outlet pipe (23). And the other end over the Abrasive Safety Trigger Hose Adapter (49).
4. Both hose ends should be firmly seated on the nipples. Slide the hose clamps along the hose to each nipple and tighten the clamps very firmly. They have to resist the force of 60 to 125 PSI.

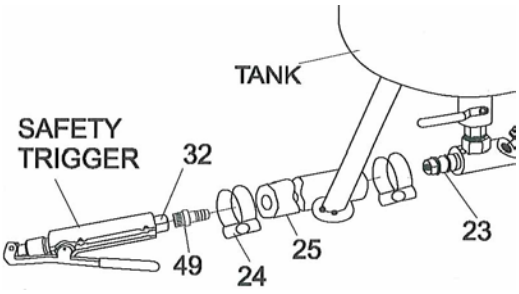


Figure 1

5. Lay the Abrasive Blast Tank on a flat level surface (such as a workbench or table top), with the handlebar mounting brackets facing up. (Figure 2)
6. Align the 4 holes in the Handlebar (06) with the four holes in the handlebar mounting brackets. Note: Keep the curved end of the handle facing upward.
7. Place a Washer (10) onto each of the four handlebar mounting Screws (08) and insert them through each of the four holes.
8. Place a nut (09) onto the end of each screw and firmly tighten with a wrench.
9. Locate the Wheel Axle (05) and slide it through the axle holes located at the bottom of the handlebar.
10. Slide a wheel Washer (26) onto each end of the wheel axle.
11. Slide a wheel (02) onto each end of the wheel axle.
12. Slide a wheel Washer (26) onto each end of the wheel axle.
13. Using snap ring pliers, install a Snap Ring (47) onto each end of the wheel axle. Note: Wheel axle has a groove cut into it - snap ring should rest in this groove so it will not slide off the wheel axle.
14. Firmly snap Wheel Lids (48) into place on wheels.
15. Roll Abrasive Blast Tank over so that handle is now facing down.

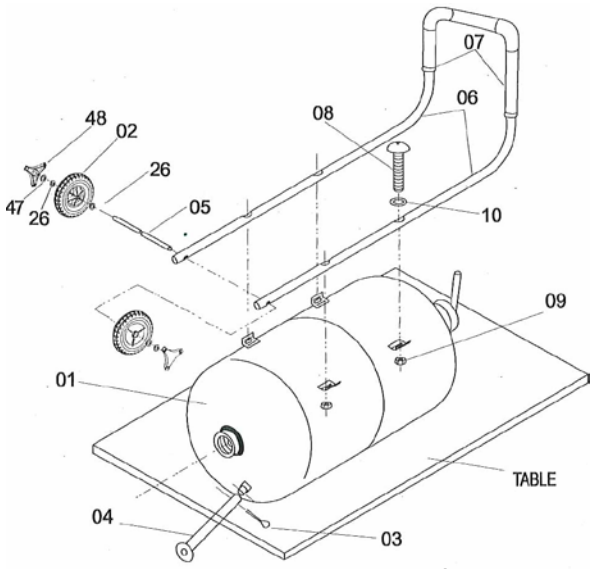


Figure 2

16. Align the holes of the Front Foot (04) with the holes in the foot mount on the front side of the Blast Tank.
17. Insert Cotter Pin (03) through the holes and bend it so the Front Foot cannot slide off the foot mount.

OPERATION

⚠ CAUTION

Always wear your hood, dust mask and heavy duty canvas gloves when operating the abrasive blaster.

⚠ WARNING

Before operating your abrasive blaster, inspect each connection, double checking to make sure that all are tight and properly sealed.

⚠ WARNING

THIS MACHINE IS NOT INTENDED FOR USE WITH SILICA BASED ABRASIVES. SILICA BASED ABRASIVES HAVE BEEN LINKED TO SEVERE RESPIRATORY DISEASE. ALWAYS USE SILICA SUBSTITUTES WHEN ABRASIVE BLASTING!

The kind of abrasive you choose will greatly influence the amount of time needed to clean a given surface area. Abrasive materials include garnet, glass beads and others. For best results, use 80 grit abrasive or finer. Do not exceed 80 grit media size.

Abrasive Media Quick Reference Guide
Red Garnet Hardness 8
Good for general metal usage. Ideal for general rust, paint and scale removal from metal parts.
Glass Bead Hardness 6
Perfect for light deburring or applying satin-like finishes on parts. Round shape of glass bead keeps it from cutting into work surfaces; instead the surface is pounded or "peened." Make sure that the abrasive you use is thoroughly dry. Damp abrasive can cause clogging of your abrasive blaster. While you may reuse abrasive, remember that abrasive does wear out. After use, abrasive becomes smoother.and rounder, thus reducing abrasive effectiveness. Reusing abrasive may also cause clogging due to debris contained in the mixture from prior use.

Abrasive Flow Adjustment
Choose a larger nozzle for a broader spray pattern. Choose a smaller nozzle for more focused abrasive blasting. Adjust air pressure with the Brass Throttling Valve (19A). Adjust abrasive flow with Abrasive Control Valve (19B). Watch for abrasive clogging. Release pressure from the tank if necessary and replace the abrasive with drier or cleaner abrasive.

Safety and Health Considerations

WARNING: THIS MACHINE IS NOT INTENDED FOR USE WITH SILICA BASED ABRASIVES. SILICA BASED ABRASIVES HAVE BEEN LINKED TO SEVERE RESPIRATORY DISEASE. ALWAYS USE SILICA SUBSTITUTES WHEN ABRASIVE BLASTING!
Before opening tank make sure that it is not pressurized. Be sure that the gauge reads "0". If the gauge does not read "0", release pressure from the tank (see "Releasing Pressure from the Tank section). Disconnect the compressor before opening tank. Protect yourself and those around you from "over-spray". Remember that your portable abrasive blaster is shooting a powerful spray of abrasive material. Do not point it at yourself or anyone around you.

Loading Abrasive
1. Check to make sure the abrasive is dry and clean so that it does not clog the unit.
2. Close the brass Air Supply Valve (19) by turning it to the vertical position.
3. To release the pressure from the Tank, press Safety Trigger until air stops.
4. Make sure the Pressure Gauge (16) reads "0".
5. Remove the Filler Cap (13).
6. Using the Funnel (27), pour the selected abrasive media into the tank (1). Do not fill the tank more than 3/4 full. If humidity in your region is 90% or more, only fill the tank half full and check the water trap (18) more frequently.
7. Close the Filler Cap securely, assuring o-ring is in place.
Note: Place your air compressor in another room to prevent damage to it.

To Start Abrasive Blasting
Note: Start with all valves in the closed position. Following the instructions below will help prevent the formation of clogs in the abrasive hose, outlet manifold and the safety trigger.
1. Connect air compressor to the Inlet Connector (20).
2. Start compressor and open Air Supply Valve (19).
3. Open Throttling Valve (19A).
4. Check for leaks at the Filler Cap and along all hoses and fittings as the system pressurizes. If leaks are observed, release the pressure from the tank and repair immediately.
5. Point Safety Trigger in a safe direction away from people, pets or anything around you that may be damaged by direct or indirect abrasive spray.
6. Press and hold Safety Trigger until air is flowing through the trigger.
7. With the Safety Trigger open, slowly open the Abrasive Control Valve (19B) until abrasive material begins to flow out of the Safety Trigger.
8. Adjust the Abrasive Control Valve (19B) until the desired amount of abrasive material is flowing through the Trigger.
9. Begin blasting.

To Stop Blasting
1. While continuing to press and hold the Safety Trigger, turn the Abrasive Control Valve (19B) to the closed position (this is to prevent any clogging.)
2. When you notice only air (no abrasive) is coming out of the Safety Trigger, you can stop the air flow by releasing the trigger. By doing this you are ensuring a clean and clog-free manifold, hose, and safety trigger.

Releasing Pressure from the Tank
1. When finished blasting, point Safety Trigger in a safe direction away from people, pets or anything around you that may be damaged by direct or indirect abrasive spray.
2. Press and hold the Safety Trigger to expel any remaining abrasive material from the Abrasive Hose (25).
3. Close the Abrasive Control Valve (19B).
4. Release pressure on the Safety Trigger.
5. Close the Throttling Valve (19A) and the Air Supply Valve (19).
6. Disconnect air supply hose from abrasive blaster.
7. Press the Safety Trigger until air stops flowing and Pressure Gauge (16) reads "0".

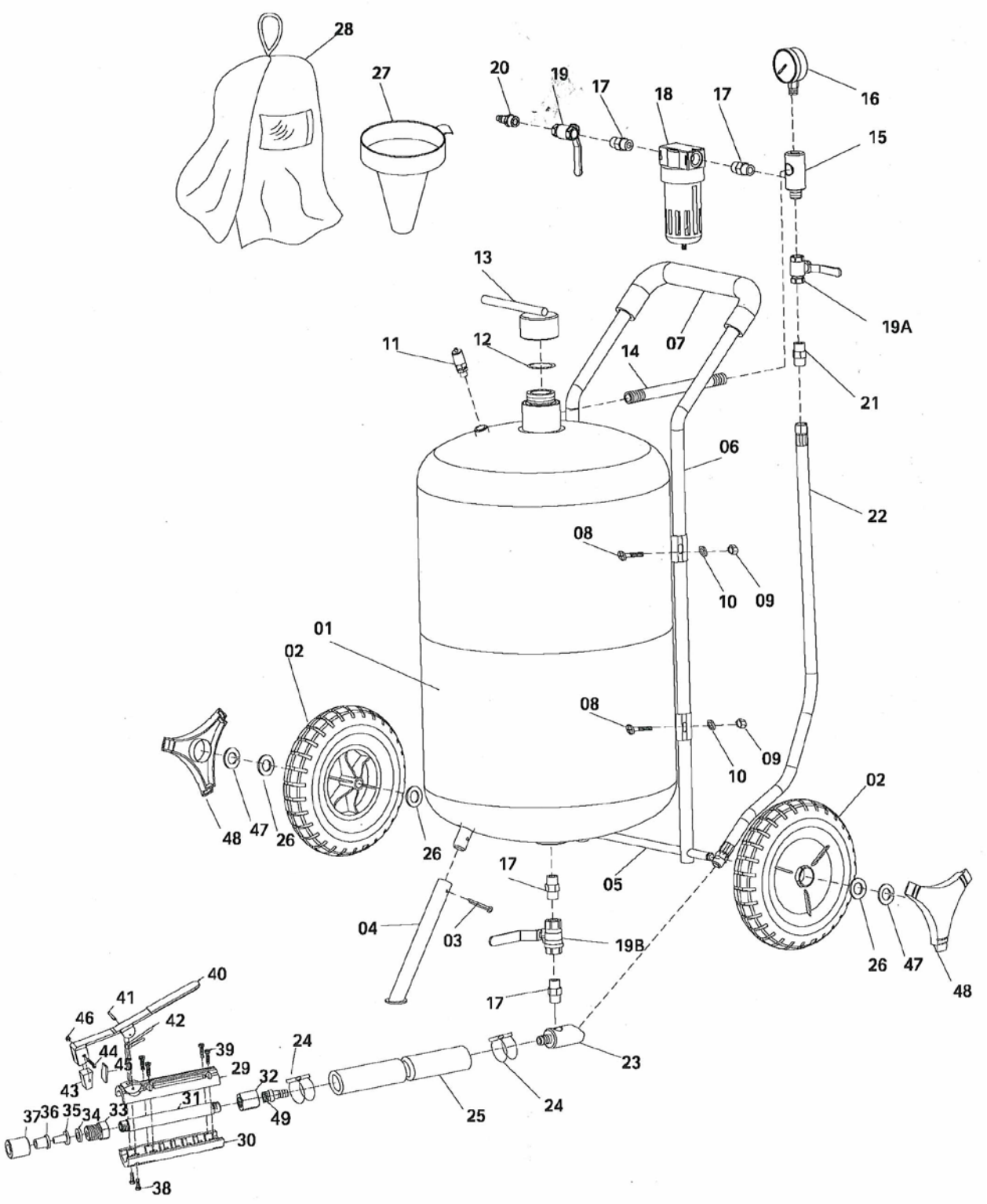
MAINTENANCE

⚠WARNING
Keep your abrasive blaster clean, and protect it from damage.

CAUTION
Release pressure from the tank after each use.

1. When initially pressurizing, check for leaks at the tank top and at all hoses and fittings. Leaking joints may be repaired by replacing worn or damaged parts and tape at joints.
2. Check for worn abrasive hose and fittings. The Abrasive Control Valve, manifold, and all parts after the abrasive is ejected from the tank are subject to rapid wear due to the flow of abrasive. Watch especially for leaks, blistering, bulging or thinness of the hose. Replace any parts which appear worn.

PARTS DIAGRAM



PARTS LIST

Part #	Description	QTY	Part #	Description	QTY
SB20G-0001	Tank	1	SB20G-0024	Hose Clamp	2
SB20G-0002	Wheels	2 .	SB20G-0025	Abrasive Hose	1
SB20G-0003	Cotter Pins	1	SB20G-0026	Wheel Washer	4
SB20G-0004	Front Foot	1	SB20G-0027	Funnel	1
SB20G-0005	Wheel Axle	1	SB20G-0028	Hood	1
SB20G-0006	Handlebar	1	SB20G-0029	Body Upper	1
SB20G-0007	Handle Grip	1	SB20G-0030	Body Lower	1
SB20G-0008	Screw	4	SB20G-0031	Metal Pipe	1
SB20G-0009	Hex Nut	4	SB20G-0032	Intake Connector	1
SB20G-0010	Washer	4	SB20G-0033	Adaptor	1
SB20G-0011	Safety Valve	1	SB20G-0034	Gasket	1
SB20G-0012	O-Ring	1	SB20G-0035	Ceramic Nozzle	4
SB20G-0013	Filler Cap	1	SB20G-0036	Rubber Adaptor	4
SB20G-0014	Joint Pipe	1	SB20G-0037	Nozzle Cap Nut	1
SB20G-0015	Intake Manifold	1	SB20G-0038	Screw ST 4.2 x 16	4
SB20G-0016	Pressure Gauge	1	SB20G-0039	Screw ST 4.2 x 12	2
SB20G-0017	Nipple Connector	4	SB20G-0040	On/Off Control Lever	1
SB20G-0018	Water Trap Filter	1	SB20G-0041	Spring Pin	1
SB20G-0019	Brass Air Supply Valve 3/8"	1	SB20G-0042	Spring	1
SB20G-0019A	Brass Throttling Valve 3/8"	1	SB20G-0043	Rubber Pad	1
SB20G-0019B	Abrasive Control Valve 3/8"	1	SB20G-0044	Screw M3 x 25	1
SB20G-0020	Inlet Connector	1	SB20G-0045	Hard Alloy Pad	1
SB20G-0021	Nipple Connector	1	SB20G-0046	Nut M3	1
SB20G-0022	Air Hose	1	SB20G-0047	Snap Ring	2
SB20G-0023	Abrasive Outlet Pipe	1	SB20G-0048	Wheel Lids	2
SB20G-0049	Hose Adaptor	1			

NOTES: